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Your Reference: 10/046,542
Our Reference: 7685-41

May 14, 2002

The Commissioner of Patents
& Trademarks
Washington, D.C. 20231
U.S.A.

Attention: Box Missing Parts

Dear Sir:

Re: NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION
United States Patent Application No. 10/046,542
Entitled: Method of Enhancing an Immune Response
Inventors: Wilfred A. Jefferies et al.
Filing Date: January 16, 2002
Art Unit: 1632

This is in response to the Notice to File Missing Parts of Nonprovisional Application - Filing Date Granted mailed February 15, 2002, a copy of which we attach. Applicants are simultaneously filing a Petition for Extension of Time (one month) rendering the due date for response **May 15, 2002**.

Please amend the application as follows:

In the Specification

Please replace the paragraph beginning at page 58, line 1, with the following rewritten paragraph:

--removed and cultured in RPMI-1640 complete medium containing 10% heat-inactivated HyClone FBS (GIBCO BRL), L-glutaimine, 100IU/ml penicillin, 100mg/ml streptomycin, Hepes, 0.1 mM non-essential amino acids, 1 mM Na-pyruvate, and 50 mM 2-ME. The splenocyte cultures were incubated at 3 X 10^6 cells/ml at 37°C for 3 days with the peptide (1 μM Sendai-Np 324-332 peptide, FAPGNYPAL (SEQ ID NO:6)) for Sendai-specific effectors or without a peptide for

VSV-specific effectors. The erythrocytes were removed from the splenocytes before 3 days culture (for VSV-specific effectors) or after (for Sendai-specific effectors).--

Please replace the paragraph beginning at page 63, line 1, with the following rewritten paragraph:

--using the following primer sets: GACCGGACTCTGGACAGC (SEQ ID NO:4) and GTAAATTCCGGGGCATCTCCT (SEQ ID NO:7) corresponding to rat TAP1: AGGAAGCAGATTTCAGAACTC (SEQ ID NO:8) and AGTCCTGAGAGGGCTCAG TGT (SEQ ID NO:9) corresponding to rat TAP2 respectively. The β-actin subunit primer set was obtained from Ambion. For all targets, the PCR reaction consisted of 30 cycles of amplification at an annealing temperature of 56°C using Platinum Taq polymerase (Invitrogen), according to manufacturer's instructions. One tenth of the product of each PCR reaction was examined by agarose gel electrophoresis. The inventors measured the intensity of β-actin product in order to ensure that the reaction kinetics and starting material of cDNA in each reaction was equivalent.--

Please replace the paragraph beginning at page 63, line 22, with the following rewritten paragraph:

--For tyrosinase-related protein 2 (TRP-2) specific CTL generation, the specificity of splenocytes was generated by injecting mice intraperitoneal with 3 x 10^6 γ-irradiated RMA-S cells pulsed with 5 μM, K^b-restricted TRP-2 peptides (SVYDFFVWL (SEQ ID NO:10)) for 5 days. Upon removal the splenocytes were cultured with 1 μM TRP-2 for 6 days and used for bulk-culture CTLs in a standard 4 h ^{51}Cr release assay.--

Please insert Sequence Listing pages 89-91 into the specification.

In the Claims

Please renumber claim pages 89-91 as claim pages 92-94.

In the Abstract

Please renumber abstract page 92 as page 95.

In the Drawings

Please replace Figures 1-40 with the enclosed Figures 1-40.

REMARKS

Declaration

In accordance with the provisions of 37 C.F.R. §1.63, applicant hereby submits an executed Declaration for Utility Application of inventors **Wilfred Arthur Jefferies, Qian-Jin Zhang, Susan Shu-Ping Chen and Judie Barbara Alimonti** (including Application Data Sheet).

Fees

The government fee of $435.00 is included in our cheque No. , in respect of (1) the filing fee of $370.00 (small entity); and (2) the late declaration surcharge of $65.00 (small entity).

If any additional fee is due, including a fee for a further extension of time, such an extension is hereby requested and the Commissioner is authorized to charge any such fee to Deposit Account No. 02-2095.

Substitute Drawings

Figures 1-40 have been amended to conform with the requirements (margin & reproduction) set out in 37 CFR 1.84.

Sequence Listing

By the present amendment, Applicant has amended specification pages 58 and 63 to insert reference to SEQ ID NOS: 4, 6, 7, 8, 9 and 10.

In order to comply with the requirements of 37 C.F.R. 1.821-1.825, Applicants are submitting herewith (1) a Sequence Listing in paper form; (2) a Sequence Listing in

computer readable form (a 3.5" floppy diskette) in the ASCII format and (3) a statement (set forth below) that the paper form and the computer readable form of the Sequence Listing are the same.

In accordance with the requirements of 37 C.F.R. 1.821-1.825 the undersigned verifies that the paper form of the Sequence Listing and the computer readable form of the Sequence Listing are the same. No new matter has been added.

Respectfully submitted,

Wilfred Arthur Jefferies et al.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification

Paragraph beginning at line 1 of page 58 has been amended as follows:

--removed and cultured in RPMI-1640 complete medium containing 10% heat-inactivated HyClone FBS (GIBCO BRL), L-glutaimine, 100IU/ml penicillin, 100mg/ml streptomycin, Hepes, 0.1 mM non-essential amino acids, 1 mM Na-pyruvate, and 50 mM 2-ME. The splenocyte cultures were incubated at 3 X 10^6 cells/ml at 37°C for 3 days with the peptide (1 μM Sendai-Np 324-332 peptide, FAPGNYPAL (SEQ ID NO:6)) for Sendai-specific effectors or without a peptide for VSV-specific effectors. The erythrocytes were removed from the splenocytes before 3 days culture (for VSV-specific effectors) or after (for Sendai-specific effectors).--

Paragraph beginning at line 1 of page 63 has been amended as follows:

--using the following primer sets: GACCGGACTCTGGACAGC (SEQ ID NO:4) and GTAAATTCCGGGGCATCTCCT (SEQ ID NO:7) corresponding to rat TAP1: AGGAAGCAGATTTCAGAACTC (SEQ ID NO:8) and AGTCCTGAGAGGGCTCAG TGT (SEQ ID NO:9) corresponding to rat TAP2 respectively. The β-actin subunit primer set was obtained from Ambion. For all targets, the PCR reaction consisted of 30 cycles of amplification at an annealing temperature of 56°C using Platinum Taq polymerase (Invitrogen), according to manufacturer's instructions. One tenth of the product of each PCR reaction was examined by agarose gel electrophoresis. The inventors measured the intensity of β-actin product in order to ensure that the reaction kinetics and starting material of cDNA in each reaction was equivalent.--

Paragraph beginning at line 22 of page 63 has been amended as follows:

--For tyrosinase-related protein 2 (TRP-2) specific CTL generation, the specificity of splenocytes was generated by injecting mice intraperitoneal with 3 x 10^6 γ-irradiated RMA-S cells pulsed with 5 μM, K^b-restricted TRP-2 peptides (SVYDFFVWL (SEQ ID NO:10)) for 5 days. Upon removal the splenocytes were cultured with 1 μM TRP-2 for 6 days and used for bulk-culture CTLs in a standard 4 h ^{51}Cr release assay--

Sequence Listing pages 89-91 have been inserted into the specification.

In the Claims

Claim pages 89-91 have been renumbered as pages 92-94.

In the Abstract

Abstract page 92 has been renumbered as page 95.

In the Drawings

Figures 1-40 have been replaced with amended Figures 1-40.